

**EUROSTAR**

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**199CH**

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**MODEL**

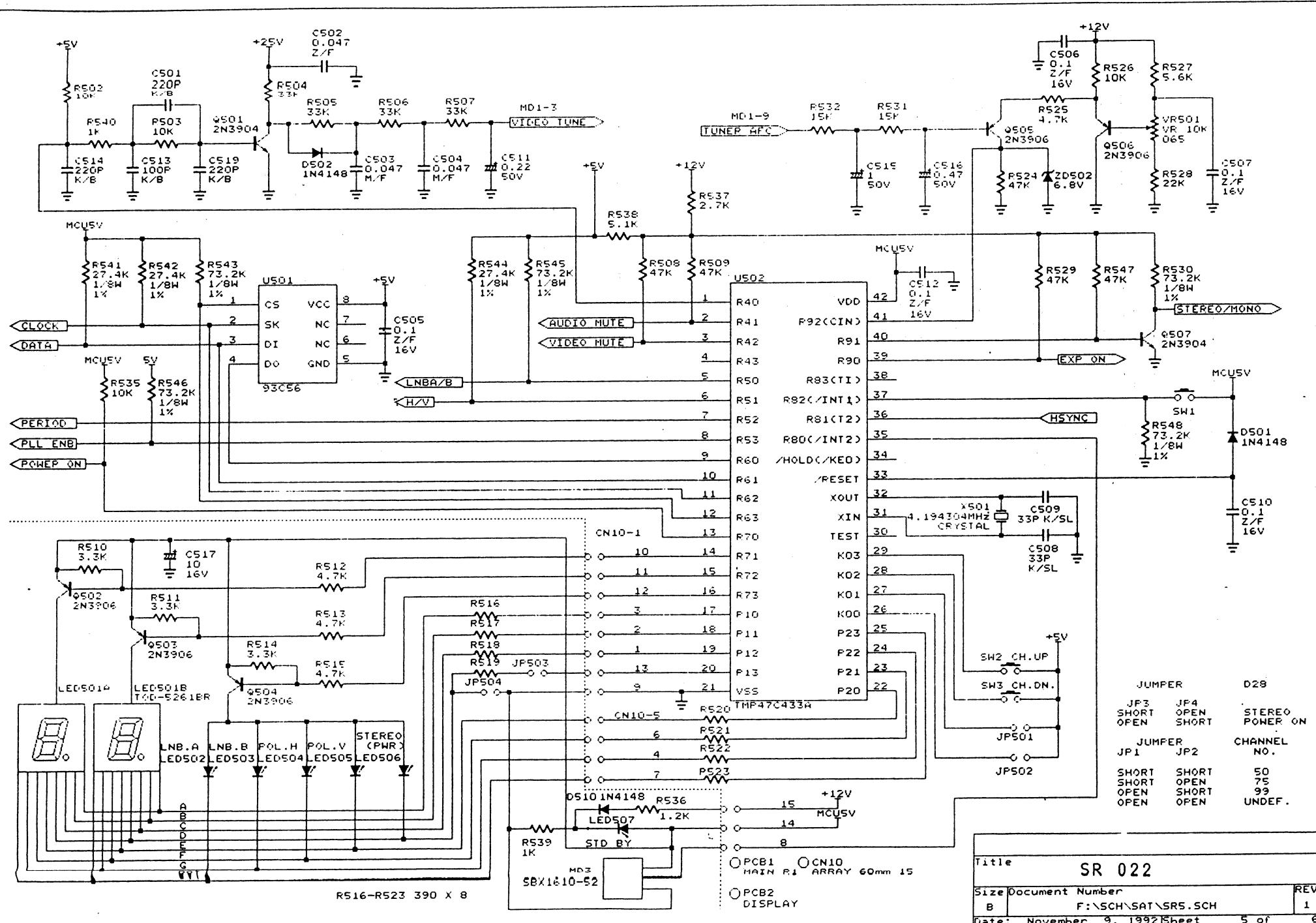
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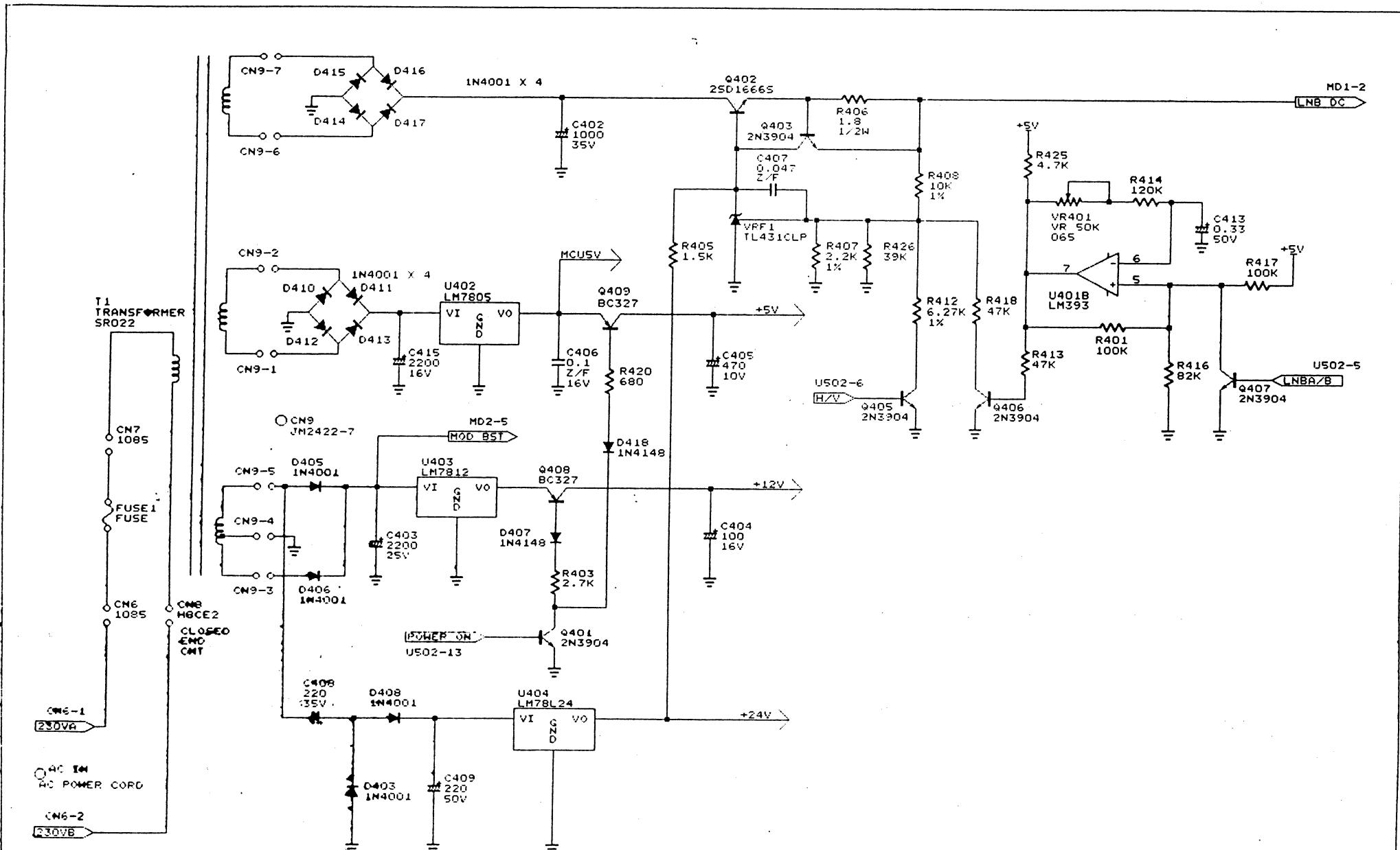
**SERVICE MANUAL**

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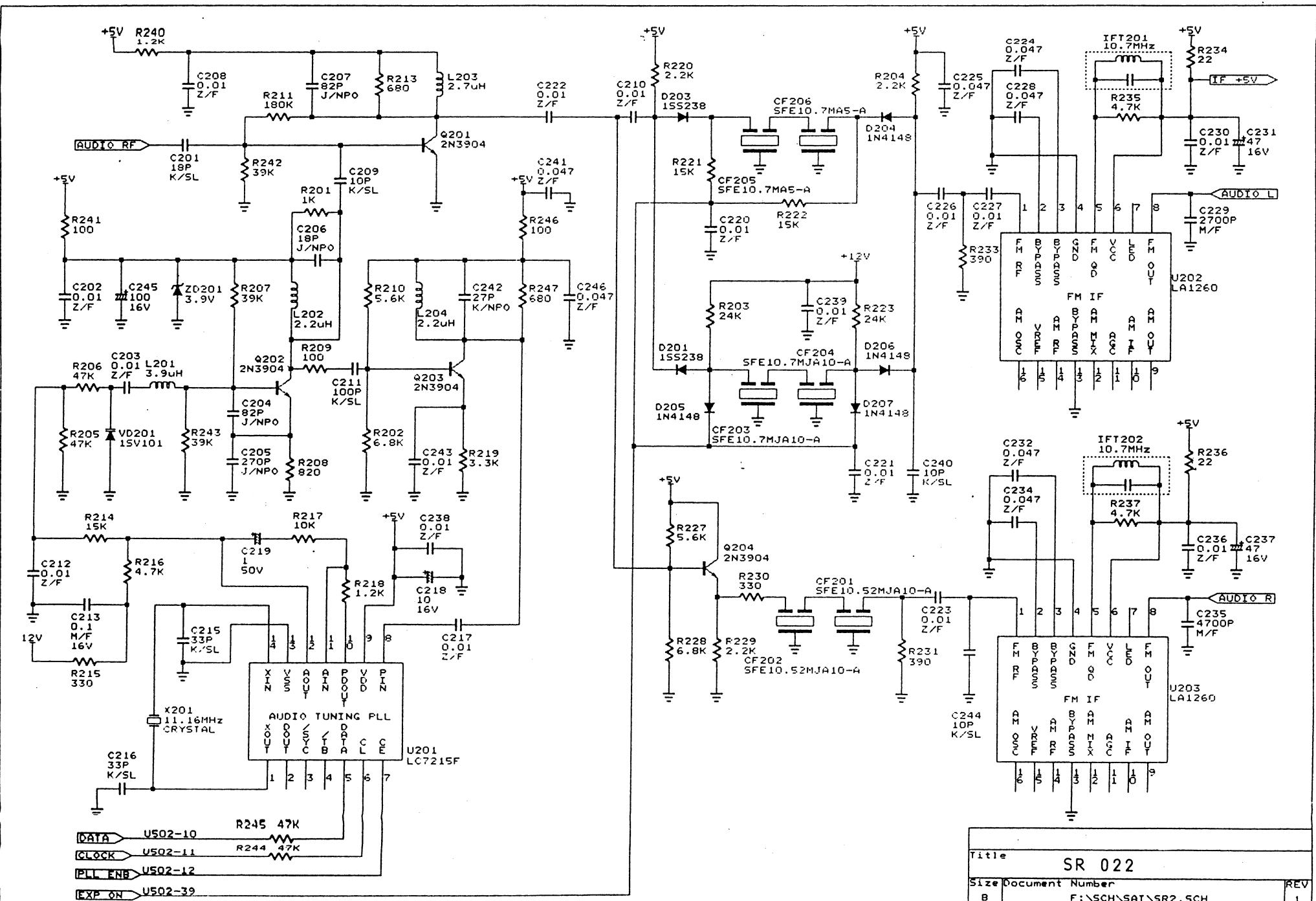
PART NO.	DESCRIPTION	QTY	Reference
04FHM4730000	CER Z5V 50V +80-20% 0.047 uF	9	C223,C226,C227,C230,C236, C238,C239,C243
04GHH1010000	CER Y5P 50V +10%	100 pF	1 C513
04GHH2210000	CER Y5E 50V +10%	220 pF	3 C501,C514,C519
04GHH3310000	CER Y5E 50V +10%	330 pF	1 C131
04GHH4710000	CER Y5E 50V +10%	470 pF	2 C335,C336
04GHH6810000	CER Y5E 50V +10%	680 pF	2 C333,C334
04GHH1020000	CER Y5P 50V +10%	1000 pF	1 C133
04GHH1520000	CER Y5P 50V +10%	1500 pF	2 C330,C331
04HHH1000000	CER SL 50V +10%	10 pF	3 C209,C240,C244
04HHH1800000	CER SL 50V +10%	18 pF	1 C201
04HHH3300000	CER SL 50V +10%	33 pF	4 C215,C216,C508,C509
04HHH1010000	CER SL 50V +10%	100 pF	3 C211,C601,C602
04HHH1210000	CER SL 50V +10%	120 pF	2 C326,C329
04IHG1800000	CER NPO 50V +5%	18 pF	1 C206
04IHG2200000	CER NPO 50V +5%	22 pF	1 C104
04IHG8200000	CER NPO 50V +5%	82 pF	3 C110,C204,C207
04IHG1210000	CER NPO 50V +5%	120 pF	1 C111
04IHG1510000	CER NPO 50V +5%	150 pF	2 C105,C106
04IHG2210000	CER NPO 50V +5%	220 pF	1 C109
04IHG2710000	CER NPO 50V +5%	270 pF	3 C123,C124,C205
04IHH2700000	CER NPO 50V +10%	27 pF	1 C242
04JIH1020000	MYLAR 100V +10%	1000 pF	1 C127
04JIH1040000	MYLAR 100V +10%	0.1 uF	1 C118
05CDC1R00000	CARBON FILM 1/4W 5%	1 Ohm	1 R601
05CDC0220000	CARBON FILM 1/4W 5%	22 Ohm	4 R145,R234,R236,R334
05CDC0820000	CARBON FILM 1/4W 5%	82 Ohm	2 R105,R114
05CDC1000000	CARBON FILM 1/4W 5%	100 Ohm	6 R110,R118,R140,R209,R241, R246
05CDC1500000	CARBON FILM 1/4W 5%	150 Ohm	3 R120,R129,R130
05CDC1800000	CARBON FILM 1/4W 5%	180 Ohm	1 R109
05CDC2000000	CARBON FILM 1/4W 5%	200 Ohm	2 R102,R127
05CDC2200000	CARBON FILM 1/4W 5%	220 Ohm	1 R108
05CDC2700000	CARBON FILM 1/4W 5%	270 Ohm	1 R117
05CDC3000000	CARBON FILM 1/4W 5%	300 Ohm	2 R122,R123
05CDC3300000	CARBON FILM 1/4W 5%	330 Ohm	2 R215,R230
05CDC3900000	CARBON FILM 1/4W 5%	390 Ohm	11 R139,R231,R233,R516,R517, R518,R519,R520,R521,R522, R523
05CDC4700000	CARBON FILM 1/4W 5%	470 Ohm	3 R111,R119,R124
05CDC5600000	CARBON FILM 1/4W 5%	560 Ohm	2 R342,R348
05CDC6800000	CARBON FILM 1/4W 5%	680 Ohm	3 R213,R247,R420
05CDC8200000	CARBON FILM 1/4W 5%	820 Ohm	3 R101,R104,R208
05CDC1001000	CARBON FILM 1/4W 5%	1 K	7 R112,R125,R133,R136,R201, R539,R540
05CDC1201000	CARBON FILM 1/4W 5%	1.2 K	4 R148,R218,R240,R536
05CDC1501000	CARBON FILM 1/4W 5%	1.5 K	1 R405
05CDC2201000	CARBON FILM 1/4W 5%	2.2 K	4 R204,R220,R229,R320
05CDC2701000	CARBON FILM 1/4W 5%	2.7 K	2 R403,R537
05CDC3301000	CARBON FILM 1/4W 5%	3.3 K	5 R219,R340,R510,R511,R514
05CDC3901000	CARBON FILM 1/4W 5%	3.9 K	2 R113,R126
05CDC4701000	CARBON FILM 1/4W 5%	4.7 K	12 R216,R235,R237,R304,R319, R325,R343,R425,R512,R513, R515,R525
05CDC5101000	CARBON FILM 1/4W 5%	5.1 K	1 R538
05CDC5601000	CARBON FILM 1/4W 5%	5.6 K	4 R210,R227,R322,R527
05CDC6801000	CARBON FILM 1/4W 5%	6.8 K	4 R132,R134,R202,R228

PART NO.	DESCRIPTION	QTY	Reference	
01CDM0105001	uP-ASR 01	1	U502	
01CLU0101000	ANALOG MX 2 CHANNEL	2	U101, U302	
01BLA0101000	OP AMP-QUAD	2	U301, U304	
01BLP0101017	COMPARATOR-DUAL	1	U401	
01BIF0102005	FM IF	2	U202, U203	
01CLF0101005	AUDIO TUNING PLL	1	U201	
01BLR0101017	VOLT REFERENCE 3.6V	1	VRF1	
01BLR1202018	VOLT REGULATOR	1	U404	
01BLR0801018	VOLT REGULATOR	1	U402	
01BLR0802018	VOLT REGULATOR	1	U403	
01CDN0102018	SERIAL EEPROM 2K	1	U501	
01CDF1501001	IR TRANSMITTER	1	U601	
02CAC0013007	TRANSISTOR-NPN	20	Q102, Q103, Q105, Q106, Q107, Q110, Q112, Q201, Q202, Q203, Q204, Q302, Q401, Q403, Q405, Q406, Q407, Q501, Q507, Q601	
02CDD0012003	TRANSISTOR-NPN	1	Q402	
02AAC0013007	TRANSISTOR-FNP	10	Q101, Q104, Q109, Q111, Q301, Q502, Q503, Q504, Q505, Q506	
02AAC0033007	TRANSISTOR-PNP	2	Q408, Q409	
03AZZ0001000	DIODE-SIGNAL	10	D102, D204, D205, D206, D207, D407, D418, D501, D502, D510	
03AZZ0003000	DIODE-SMALL SIGNAL	2	D201, D203	
03CDD0101000	DIODE-RECTIFIER	13	D403, D405, D406, D408, D410, D411, D412, D413, D414, D415, D416, D417, D601	
03EAC03R9000	DIODE-ZENER 0.5W	3.90V	1	ZD201
03EAC06R8000	DIODE-ZENER 0.5W	6.80V	1	ZD502
03HZZ0003001	DIODE-VARI-CAP	1SV101	1	VD201
03LZZ0010001	DIODE-INFRARED	TLN105B	1	IR601
04ACI2270006	ELECT 10V +20%	220 uF	3	C103, C108, C121
04ACI4770006	ELECT 10V +20%	470 uF	3	C120, C128, C405
04AEI1060006	ELECT 16V +20%	10 uF	17	C112, C114, C117, C119, C122, C125, C126, C129, C218, C315, C316, C317, C318, C319, C325, C332, C517
04AEI2260006	ELECT 16V +20%	22 uF	7	C307, C322, C323, C324, C327, C328, C345
04AEI4760006	ELECT 16V +20%	47 uF	4	C231, C237, C339, C603
04AEI1070006	ELECT 16V +20%	100 uF	5	C107, C113, C130, C245, C404
04AEI2270006	ELECT 16V +20%	220 uF	1	C101
04AEI2280006	ELECT 16V +20%	2200 uF	1	C415
04AFI2280006	ELECT 25V +20%	2200 uF	1	C403
04AGI2270006	ELECT 35V +20%	220 uF	1	C408
04AGI1080006	ELECT 35V +20%	1000 uF	1	C402
04AHI2240006	ELECT 50V +20%	0.22 uF	1	C511
04AHI3340006	ELECT 50V +20%	0.33 uF	1	C413
04AHI4740006	ELECT 50V +20%	0.47 uF	1	C516
04AHI1050006	ELECT 50V +20%	1 uF	2	C219, C515
04AHI2250006	ELECT 50V +20%	2.2 uF	1	C321
04AHI2270006	ELECT 50V +20%	220 uF	1	C409
04FEI1040000	CER Y5V 16V +20%	0.1 uF	1	C213
04FEM1040000	CER Z5U 16V +80-20%	0.1 uF	8	C115, C320, C406, C505, C506, C507, C510, C512
04FHI2720000	CER Z5U 50V +20%	2700 pF	1	C229
04FHI4720000	CER Z5U 50V +20%	4700 pF	1	C235
04FHI4730000	CER Z5U 50V +20%	0.047 uF	2	C503, C504
04FHM1030000	CER Z5V 50V +80-20%	0.01 uF	18	C132, C202, C203, C208, C210, C212, C217, C220, C221, C222



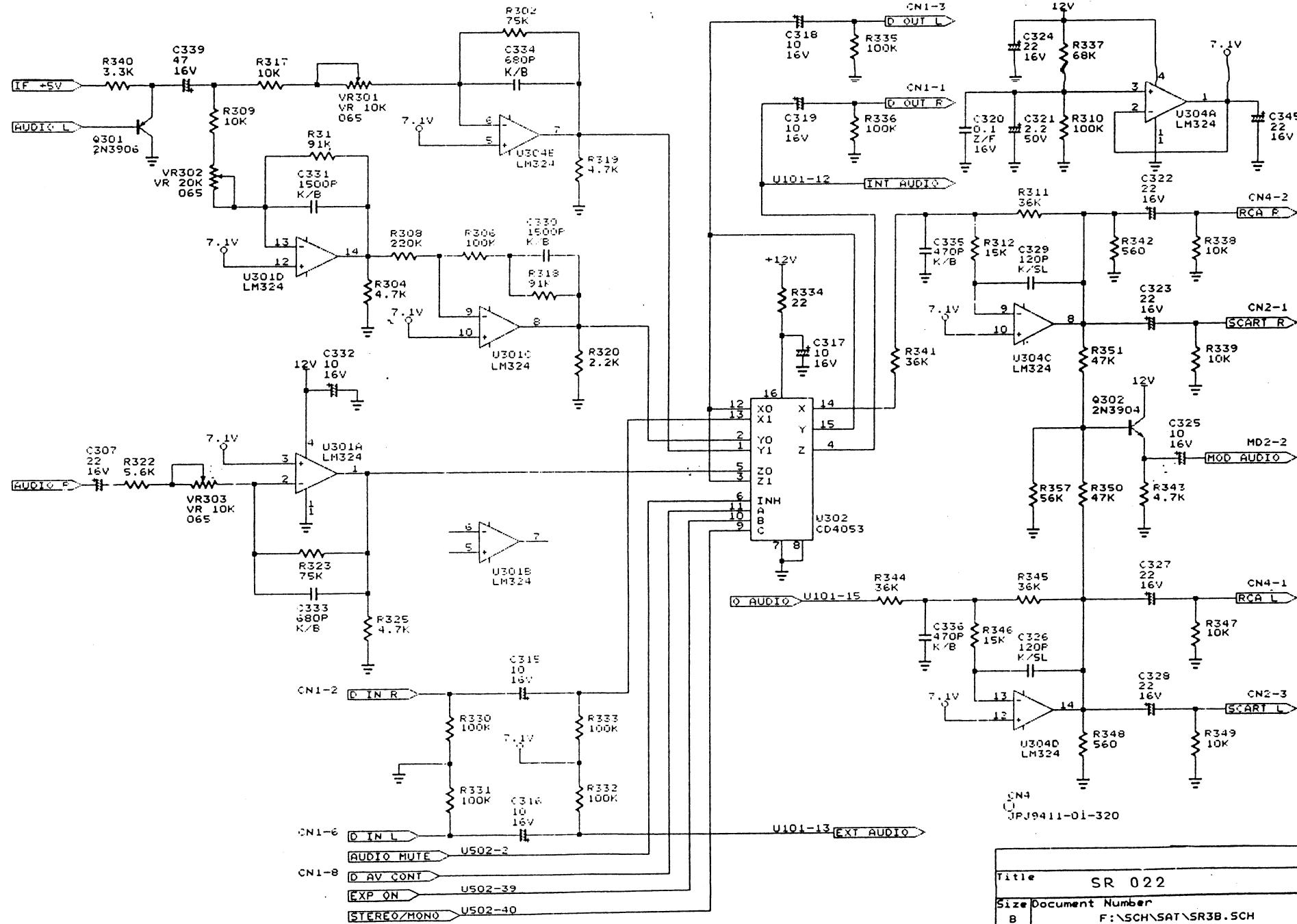


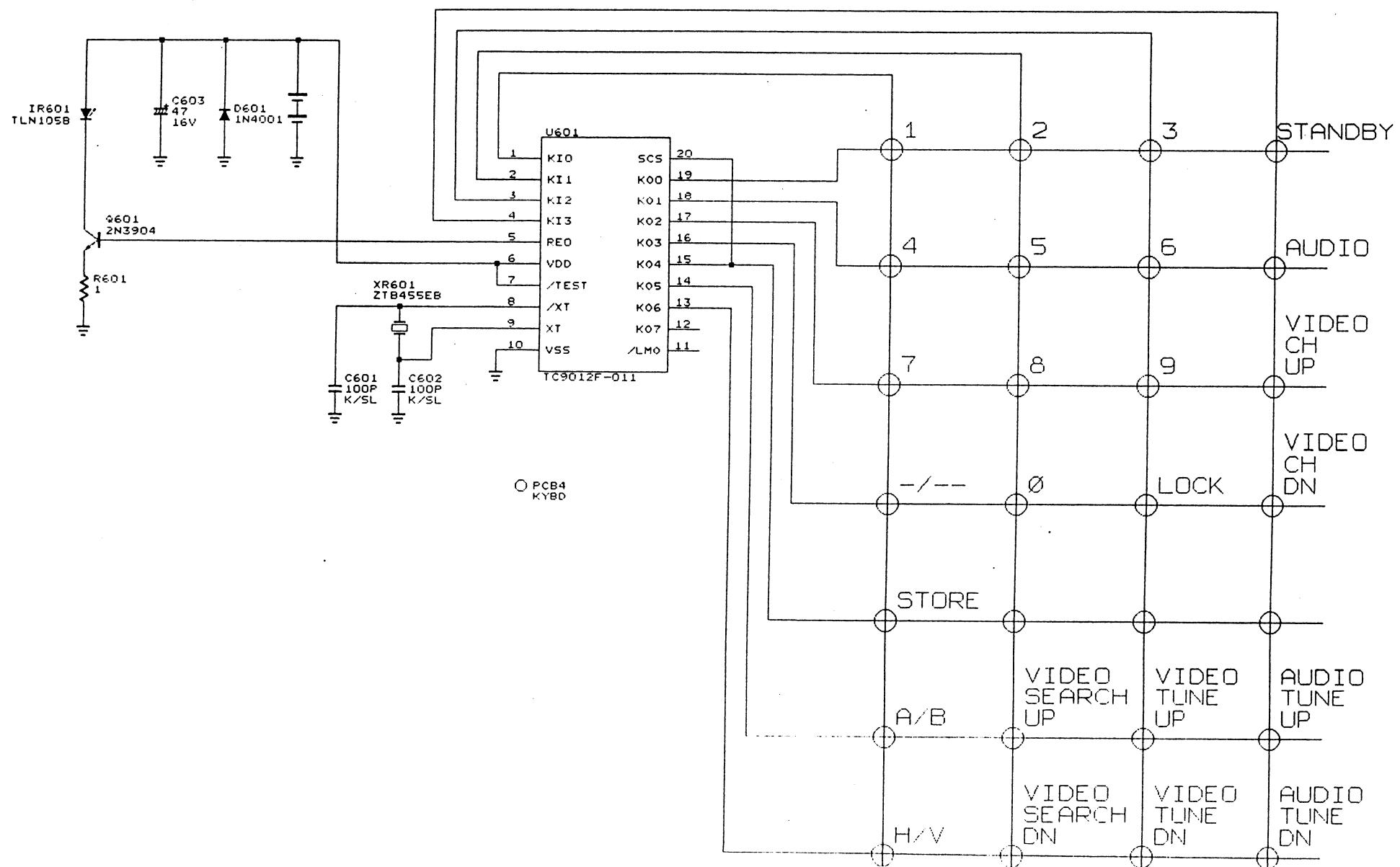
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Title  
SR 022

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REV 1  
Date: November 9, 1992 Sheet 2 of 6

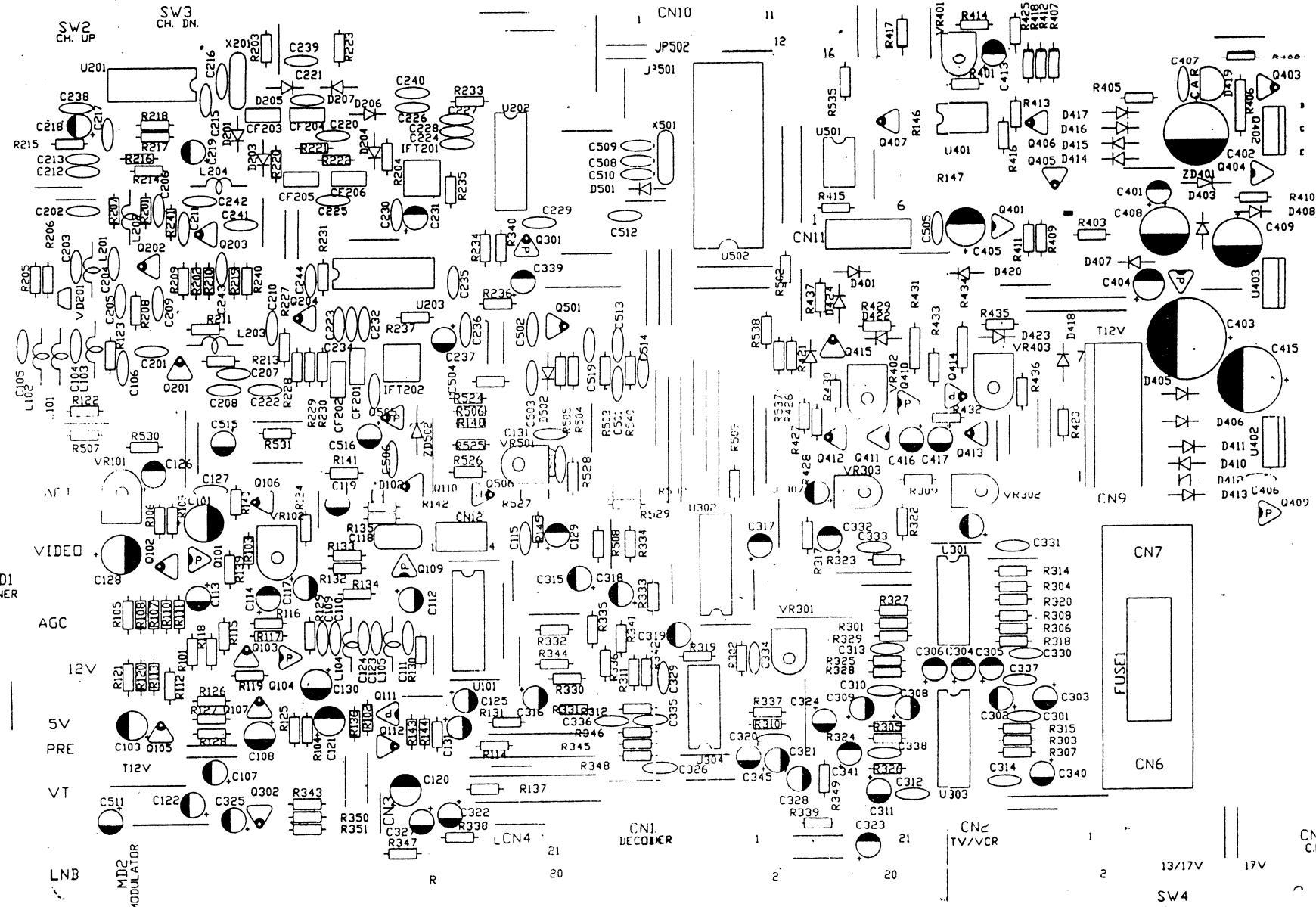


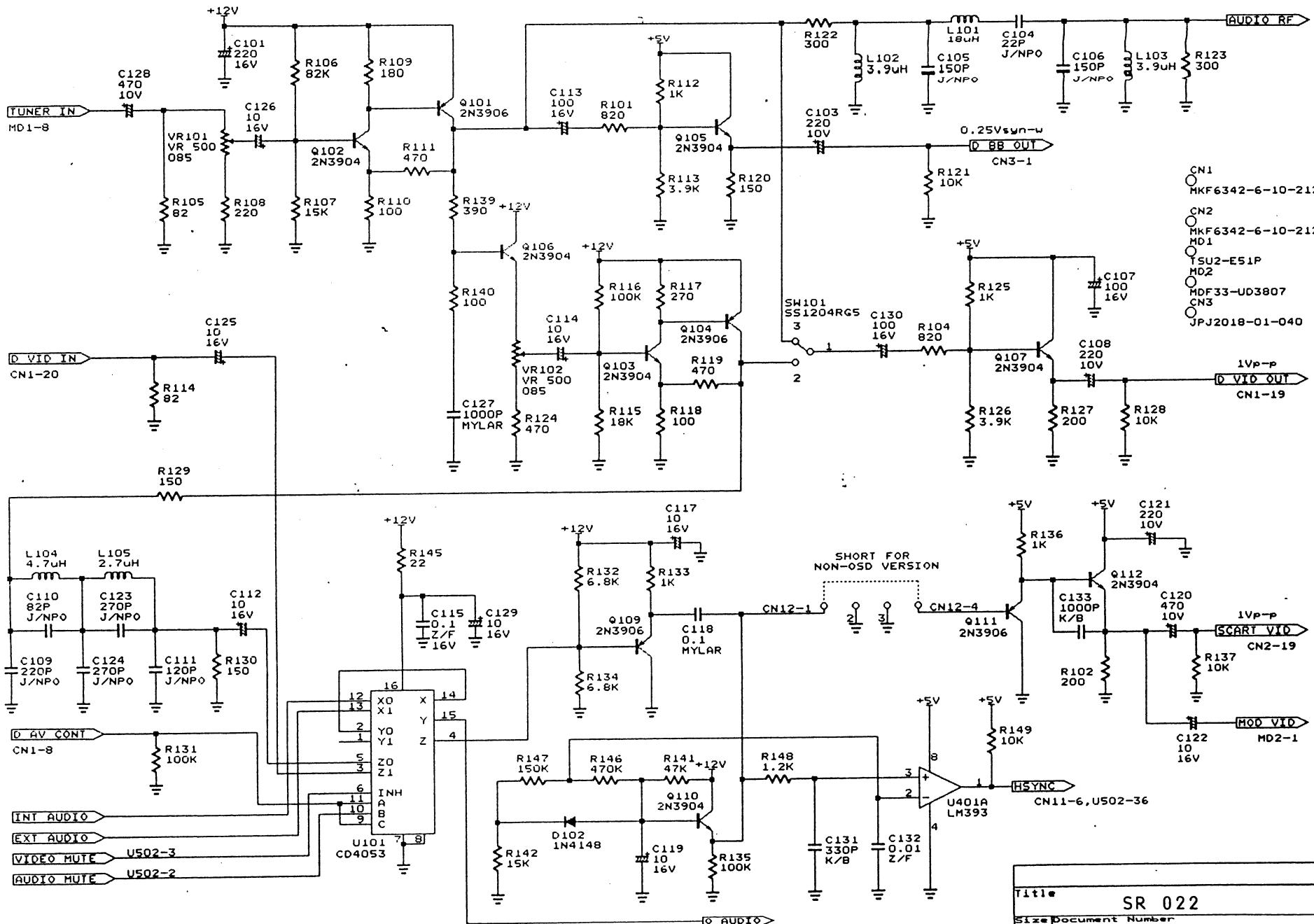


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Date: October 27, 1992		Sheet	6 of 5

SR022  
MAIN BOARD  
V. 2

SW1  
POWER





Title		SR 022	
Size Document Number		REV	
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Date: November 9, 1992		Sheet	1 of 6

SATELLITE RECEIVER SR022

Bill of Material

DATE: 16-Nov-92

PART NO.	DESCRIPTION	QTY	Reference
82NBS0010310	BOTTOM CABINET	ASR1	1
82NBS0010400	KNOB-CHANNEL UP/DOWN	ASR1	1
82NBS0010500	KNOB-POWER	ASR1	1
82NBS0010600	MTG HOLDER	ASR1	2
82NBS0010700	REMOTE TOP CABINET	ASR1	1
82NBS0010800	REMOTE BOTTOM CABINET	ASR1	1
82NBS0010900	REMOTE BATTERY DOOR	ASR1	1
82NBS0011000	SCREW-DRIVER	ASR1	1 ACCESSORY

PART NO.	DESCRIPTION	QTY	Reference	
05CDC1002000	CARBON FILM 1/4W 5%	10 K	15 R121,R128,R137,R149,R217, R309,R317,R338,R339,R347, R349,R502,R503,R526,R535	
05CDC1502000	CARBON FILM 1/4W 5%	15 K	9 R107,R142,R214,R221,R222, R312,R346,R531,R532	
05CDC1802000	CARBON FILM 1/4W 5%	18 K	1 R115	
05CDC2202000	CARBON FILM 1/4W 5%	22 K	1 R528	
05CDC2402000	CARBON FILM 1/4W 5%	24 K	2 R203,R223	
05CDC3302000	CARBON FILM 1/4W 5%	33 K	4 R504,R505,R506,R507	
05CDC3602000	CARBON FILM 1/4W 5%	36 K	4 R311,R341,R344,R345	
05CDC3902000	CARBON FILM 1/4W 5%	39 K	4 R207,R242,R243,R426	
05CDC4702000	CARBON FILM 1/4W 5%	47 K	14 R141,R205,R206,R244,R245, R350,R351,R413,R418,R508, R509,R524,R529,R547	
05CDC5602000	CARBON FILM 1/4W 5%	56 K	1 R357	
05CDC6802000	CARBON FILM 1/4W 5%	68 K	1 R337	
05CDC7502000	CARBON FILM 1/4W 5%	75 K	2 R302,R323	
05CDC8202000	CARBON FILM 1/4W 5%	82 K	2 R106,R416	
05CDC9102000	CARBON FILM 1/4W 5%	91 K	2 R315,R318	
05CDC1003000	CARBON FILM 1/4W 5%	100 K	13 R116,R131,R135,R306,R310, R330,R331,R332,R333,R335, R336,R401,R417	
05CDC1203000	CARBON FILM 1/4W 5%	120 K	1 R414	
05CDC1503000	CARBON FILM 1/4W 5%	150 K	1 R147	
05CDC1803000	CARBON FILM 1/4W 5%	180 K	1 R211	
05CDC2203000	CARBON FILM 1/4W 5%	220 K	1 R308	
05CDC4703000	CARBON FILM 1/4W 5%	470 K	1 R146	
05FC1R80000	CARBON FILM 1/2W 5%	1.8 Ohm	1 R406	
05MBA2742000	METAL FILM 1/8W 1%	27.4K	3 R541,R542,R544	
05MBA7322000	METAL FILM 1/8W 1%	73.2K	5 R530,R543,R545,R546,R548	
05MDA2201000	METAL FILM 1/4W 1%	2.2 K	1 R407	
05MDA6271000	METAL FILM 1/4W 1%	6.27K	1 R412	
05MDA1002000	METAL FILM 1/4W 1%	10 K	1 R408	
06TAD1040004	VR-TRIMMER FRB-065	10 K	3 VR301,VR303,VR501	
06TAD2040004	VR-TRIMMER FRB-065	20 K	1 VR302	
06TAD5040004	VR-TRIMMER FRB-065	50 K	1 VR401	
06TAD5020104	VR-TRIMMER FRB-085	500 Ohm	2 VR101,VR102	
07ARB2290101	INDUCTOR-EC36	10%	2.2 uH	2 L202,L204
07ABA2790101	INDUCTOR-EC36	5%	2.7 uH	2 L105,L203
07ARB3990101	INDUCTOR-EC36	10%	3.9 uH	3 L102,L103,L201
07ARB4790101	INDUCTOR-EC36	10%	4.7 uH	1 L104
07AEE1800101	INDUCTOR-EC36	10%	18 uH	1 L101
08IZN0120017	X'FORMER-IF 10.7 MHz	7M7A161R	2 IFT201,IFT202	
08PZV0010016	X'FORMER-POWER	SR022	1 T1	
09RAB4550209	RESONATOR 455 KHz	ZTB455EB	1 XR601	
09CCB1052701	CER FILTER 10.52MHz	SFE10.52MJA1	2 CF201,CF202	
09CCA1072701	CER FILTER 10.7 MHz	SFE10.7MA5-A	2 CF205,CF206	
09CCB1072701	CER FILTER 10.7 MHz	SFE10.7MJA10	2 CF203,CF204	
10BZA0419402	CRYSTAL 4.194304MHz	30PPM HC49U	1 X501	
10BZA1116002	CRYSTAL 11.160MHz	30PPM HC49U	1 X201	
12SUA0100001	TUNER	TSU2-E51P	1 MD1	
12MGA0100001	MODULATOR	MDF33-UD3807	1 MD2	
14STS0011123	PCB MAIN R1(94V0)	ASR1	1 PCB1	
14STS0012023	PCB DISPLAY (94V0)	ASR1	1 PCB2	
14SGS0013013	PCB KYBD (94HB)	ASR1	1 PCB4	
15CFV0500200	FUSE-TRAID 0.50A/250V	50F-0.5A	1 FUSE1	
17RRS0205010	LED-2X5mm RECT RED	BL-R1112N	6 LED502,LED503,LED504,LED505, LED506,LED507	
17ARM0714020	LED-0.56" DUAL DIGIT	TOD-5261BR	1 LED501	

PART NO.	DESCRIPTION	QTY	Reference
18SSN0002116	JACK-SCART MKF6342-6-10-2121	2	CN1,CN2
18JPN0000143	JACK-RCA JPJ2018-01-040 YELLOW	1	CN3
18JPN0000413	JACK-RCA JPJ9411-01-320 WHITE/RED	1	CN4
19MZN1111012	SWITCH-TACT R 1P1T KPT1105V	3	SW1,SW2,SW3
19SBN1210021	SWITCH-SLIDE V 1P2T SS1204RG5	1	SW101
21TTA0000102	CONNECTOR-CLOSED END H8CE2	1	CN8
21TTA0000112	CONNECTOR-METAL PIN PRA23601710	2	CN6,CN7
21CZA0000102	CONNECTOR-SLEEVE 1085	1	
21STC5000702	WAFER-JM2422-7 7 FIN	1	CN9
22FCN0601501	ARRAY 60mm/4mm 15P	1	CN10
22FZV0220213	CORD-AC POWER VDE 2.2 M	1	AC IN
22CZN0100220	CABLE-TV ANTENNA 1 M	1	
23WSA0000500	WIRE BARE JUMPER 0.5mm mm	138	JP501,JP502,JP503,JP504
23WBB0752611	WIRE S- 75-3 1007/26 BLACK	1	
23WRB0752611	WIRE S- 75-3 1007/26 RED	1	
23WWB0902611	WIRE S- 90-3 1007/26 WHITE	1	
23WRB3202222	WIRE S-320-4 1007/22 RED	1	12V
24PPU6010200	PVC FUSE COVER 840620-23	1	FUSE1
26IZS0010004	IR RECEIVER MODULE SBX1610-52	1	MD3
41FMB2005200	MACHINE F/H M2 X 5 + BLACK	2	SW101
41FTB3012210	TAPPING F/H T3 X12 + BLACK	4	FRONT PANEL-3,CN4-1
41PTZ3006220	TAPPING P/H T3 X 6 + SZINC	7	HEAT SINK-4,TRANSISTOR-3
41UTB3010210	TAPPING U/H T3.0X10 + TBLACK	5	METAL TOP CABINET
41WTZ3010210	TAPPING W/H T3 X 10 + ZINC	10	MAIN PCB-5,X'FORMER-4 .POWER CORD-1
43PFW3316020	WASHER-FIBRE 3.3x16.0x2.0	1	POWER CORD MOUNTING
46CW03009005	POLYBAG 3.0x 9 ASR1	1	REMOTE
46CW04008005	POLYBAG 4.0x 8	1	RF CABLE
46CW04512005	POLYBAG 4.5x 12	1	POWER CORD
46CW06009505	POLYBAG 6.0x 9.5	1	INSTRUCTION
46CW12519005	POLYBAG 12.5x 19 (WARNING/RECYCLE)	1	MAIN UNIT
48NUS0010100	RUBBER-KEYPAD JMSR1309 ASR1	1	
51NBS0010110	INLAY-HANDSET TRIM SR022	1	
54NZS0010100	CONTACT-SPRING (+/-) ASR1	1	
54NZS0010200	CONTACT-SPRING (+) ASR1	1	
54NZS0010300	CONTACT-SPRING (-) ASR1	1	
55NZS0010110	BRACKET-FUSE HOLDER 05003N	2	
55NBS0010110	TOP CABINET ASR1	1	
56NBS0010110	HEAT SINK ASR1	3	
61NES0010100	CARTON (4) WHITE SR022	0	
63NWS0010100	POLYFOAM END CAP (L) ASR1	1	
63NWS0020100	POLYFOAM END CAP (R) ASR1	1	
65NZS0010200	GIFT BOX SR022	1	
66NZS0010100	INSTRUCTION SEG SR022	1	
66NZS0010200	GUARANTEE CARD SR022	1	
66NZS0010300	DBP SHEET SR022	1	
72NCM0000200	CABLE TIE K1A94/2.4N	1	TRANSFORMER
81NGG0000100	LABEL-QC PASS GREEN	1	
81NRG0000100	LABEL-QC PASS RED	1	
81NDG0000100	LABEL-QC PASS GOLD	1	
81NTG0000100	LABEL-QC PASS BLUE	1	
81NYG0000100	LABEL-QC PASS YELLOW	1	
81NGS0010100	LABEL-GREEN POINT (S)	1	GIFT BX
81NGS0010200	LABEL-GREEN POINT (L)	0	CARTON
81NWS0010300	LABEL-BACK SR022	1	
81NWS0010400	LABEL-SERIAL NUMBER SR022	3	UNIT-1,GIFT BOX-1,GuARANTEE CARD-1
82NBS0010110	FRONT PANEL ASR1	1	
82NCS0010210	LENS-FRONT PANEL ASR1	1	